Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

```
=> e tankyrase/CN
E1            1     TANK-BINDING KINASE 1 (HUMAN CLONE MGC:26196 IMAGE:4824988)/
                    CN
E2            1     TANKO KAOLIN/CN
E3            1 --> TANKYRASE/CN
E4            1     TANKYRASE (HUMAN CLONE FB11 ISOENZYME 2)/CN
E5            1     TANKYRASE (HUMAN TESTIS CLONE TT20)/CN
E6            1     TANKYRASE (HUMAN)/CN
E7            1     TANKYRASE 1-BINDING PROTEIN (HUMAN GENE TAB182)/CN
E8            1     TANKYRASE 2 (HUMAN GENE TNKS2)/CN
E9            1     TANKYRASE H (HUMAN ISOENZYME 1 C-TERMINAL FRAGMENT)/CN
E10           1     TANKYRASE H (HUMAN ISOENZYME 2 C-TERMINAL FRAGMENT)/CN
E11           1     TANKYRASE H (HUMAN ISOFORM 1 C-TERMINAL FRAGMENT)/CN
E12           1     TANKYRASE H (HUMAN ISOFORM 2 C-TERMINAL FRAGMENT)/CN

=> s E3;D
L1            1 TANKYRASE/CN



L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2003 ACS
RN   9055-67-8  REGISTRY
CN   Synthetase, poly(adenosine diphosphoribose) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Adenine dinucleotide phosphoribosyl transferase
CN   Poly(adenosine 5'-diphosphoribose) synthetase
CN   Poly(adenosine diphosphate ribose) polymerase
CN   Poly(adenosine diphosphate ribose) synthetase
CN   Poly(adenosine diphosphoribose) polymerase
CN   Poly(adenosine diphosphoribose) synthase
CN   Poly(adenosine diphosphoribose) synthetase
CN   Poly(ADP-ribose) phosphodiesterase
CN   Poly(ADP-ribose) polymerase
CN   Poly(ADP-ribose) synthase
CN   Poly(ADP-ribose) synthetase
CN   Poly(ADP-ribosyl) polymerase
CN   Poly(ADPR) synthetase
CN   Tankyrase
DR   70712-49-1
MF   Unspecified
CI   MAN
LC   STN Files:   ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
       CAPLUS, CHEMCATS, CIN, EMBASE, PROMT, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
            2835 REFERENCES IN FILE CA (1962 TO DATE)
              19 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            2840 REFERENCES IN FILE CAPLUS (1962 TO DATE)
```

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=> d his

     (FILE 'HOME' ENTERED AT 08:12:10 ON 15 APR 2003)

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,
     BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA,
     CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB,
     DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 08:12:24 ON
     15 APR 2003

     FILE 'REGISTRY' ENTERED AT 08:12:34 ON 15 APR 2003
               E TANKYRASE/CN
L1             1 S E3

     FILE 'BIOSIS, BIOTECHNO, CAPLUS, EMBASE, PROMT, MEDLINE, SCISEARCH, CIN,
     CHEMCATS' ENTERED AT 08:14:16 ON 15 APR 2003

     FILE 'REGISTRY' ENTERED AT 08:14:26 ON 15 APR 2003
               SET SMARTSELECT ON
L2           SEL L1 1- CHEM :      16 TERMS
               SET SMARTSELECT OFF

     FILE 'BIOSIS, BIOTECHNO, CAPLUS, EMBASE, PROMT, MEDLINE, SCISEARCH, CIN,
     CHEMCATS' ENTERED AT 08:14:27 ON 15 APR 2003
L3         22110 S L2
L4           363 S L3 AND (HOMOLOGS OR ISOFORM)
L5           266 S L4 AND (MODUL? OR INHIBIT? OR ASSAY)
L6           119 DUP REM L5 (147 DUPLICATES REMOVED)
L7            72 S L4 AND (PURIF? OR CHRACT? OR ISOLAT?)
L8            34 DUP REM L7 (38 DUPLICATES REMOVED)

=> log Y
```

L8 ANSWER 31 OF 34 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:466272 CAPLUS
DOCUMENT NUMBER: 119:66272
TITLE: **Purification** and characterization of NAD+:ADP-ribosyltransferase (polymerizing) from Dictyostelium discoideum
AUTHOR(S): Kofler, Barbara; Wallraff, Eva; Herzog, Herbert; Schneider, Rainer; Auer, Bernhard; Schweiger, Manfred
CORPORATE SOURCE: Inst. Biochem., Univ. Innsbruck, Innsbruck, A-6020, Austria
SOURCE: Biochemical Journal (1993), 293(1), 275-81
CODEN: BIJOAK; ISSN: 0306-3275
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A novel affinity-**purifn**. scheme based on the tight binding of NAD+:ADP-ribosyltransferase (polymg.) [pADPRT; **poly**(**ADP -ribose**) **polymerase**; EC 2.4.2.30] to single-strand nicks in DNA, single-stranded patches of DNA ends has been developed to facilitate the **purifn**. of this enzyme from the lower eukaryote Dictyostelium discoideum. Two homogeneous forms of the enzyme, with Mr values of 116,000 and 90,000, were prepd. from D. discoideum by using poly(A) hybridized to oligo(dT)-cellulose as affinity material. The Km is 20 .mu.M NAD+ for the 90000-Mr protein and 77 .mu.M NAD+ for the 11600-Mr protein. The optimum conditions for the enzyme activity in vitro are 6-10 .degree. and pH 8. The time course is linear during the first 10 min of the reaction only. As in enzymes of higher eukaryotes, the activity is dependent on DNA and histone H1 and is inhibited by 3-methoxybenzamide, nicotinamide, theophylline, caffeine and thymidine.

L8 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:795945 CAPLUS
DOCUMENT NUMBER: 132:32676
TITLE: **Isolation** of **poly(ADP-ribose)polymerase** genes and application for diagnosis and gene therapy
INVENTOR(S): Kock, Michael; Hoger, Thomas; Kroger, Burkhard; Otterbach, Bernd; Lubisch, Wilfried; Lemaire, Hans-Georg
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 96 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964572	A2	19991216	WO 1999-EP3889	19990604
WO 9964572	A3	20000608		
W: AL, AU, BG, BR, BY, CA, CN, CZ, GE, HR, HU, ID, IL, IN, JP, KR, KZ, LT, LV, MK, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2330206	AA	19991216	CA 1999-2330206	19990604
AU 9946059	A1	19991230	AU 1999-46059	19990604
BR 9910967	A	20010213	BR 1999-10967	19990604
EP 1082416	A2	20010314	EP 1999-929144	19990604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI, RO				
JP 2002517231	T2	20020618	JP 2000-553562	19990604
NO 2000006153	A	20010202	NO 2000-6153	20001204

PRIORITY APPLN. INFO.:
DE 1998-19825213 A 19980605
DE 1999-19908837 A 19990301
WO 1999-EP3889 W 19990604

AB The invention relates to **poly(ADP-ribose) polymerase** (PARP) **homologs** which are characterized by an amino acid sequence with (a) a functional NAD+-binding site and (b) no zinc-finger-sequence motif of general formula CX2CXmHX2C, wherein m is an integral no. 28 or 30 and the radicals X represent any amino acid, independently of each other; and to the functional equiv. of said **poly(ADP-ribose)polymerase** (PARP) **homologs**. The invention also relates to nucleic acids coding the **poly(ADP-ribose)polymerase** (PARP) **homologs**, to antibodies with specificity for the novel protein, to pharmaceutical and gene therapy agents contg. the inventive products, to methods for anal. detg. the inventive proteins and nucleic acids, to methods for identifying the effectors or bonding partners of the inventive proteins, to novel PARP effectors and to methods for detg. the effectiveness of effectors of this type.

L6 ANSWER 111 OF 119 SCISEARCH COPYRIGHT 2003 ISI (R)
ACCESSION NUMBER: 94:283648 SCISEARCH
THE GENUINE ARTICLE: NH774
TITLE: PURIFICATION OF POLY(ADP-RIBOSE) GLYCOHYDROLASE AND DETECTION OF ITS **ISOFORMS** BY A ZYMOGRAM FOLLOWING ONE-DIMENSIONAL OR 2-DIMENSIONAL ELECTROPHORESIS
AUTHOR: BROCHU G; SHAH G M; POIRIER G G (Reprint)
CORPORATE SOURCE: CHUL, RES CTR, MOLEC ENDOCRINOL LAB, POLY ADP RIBOSE METAB GRP, 2705 BLVD LAURIER, ST FOY G1V 4G2, PQ, CANADA (Reprint); CHUL, RES CTR, MOLEC ENDOCRINOL LAB, POLY ADP RIBOSE METAB GRP, ST FOY G1V 4G2, PQ, CANADA; UNIV LAVAL, FAC MED, DEPT BIOCHEM, ST FOY G1K 7P4, PQ, CANADA
COUNTRY OF AUTHOR: CANADA
SOURCE: ANALYTICAL BIOCHEMISTRY, (01 MAY 1994) Vol. 218, No. 2, pp. 265-272.
ISSN: 0003-2697.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 40

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Poly(ADP-ribosyl)ation metabolism, a post-translational modification, involves two nuclear enzymes. **Poly(ADP-ribose) polymerase** (PARP) and poly(ADP-ribose) glycohydrolase (PARG) are responsible for the anabolism and catabolism of poly(ADP-ribose) polymer, respectively. PARG, despite being less abundant than PARP, is a crucial determinant of polymer metabolism which is known to be implicated in DNA repair and other cellular processes. Here, we describe modifications to improve the purification of PARG from calf thymus, in terms of both quantity and quality, which would allow biochemical and immunological studies. We also developed a zymogram to identify functional polypeptides exhibiting PARG activity. Purified and crude enzyme preparations from calf thymus were electrophoresed in two-dimensional gels. Samples were resolved on sodium dodecyl sulfate-polyacrylamide gel electrophoresis containing the polymer substrate in the form of automodified PARP after a nonequilibrium pH gradient electrophoresis. After renaturation of PARG in the gel, four **isoforms** of activity were clearly detected in the purified enzyme preparation. Even in the crude extract of the tissue, we could observe the major **isoform** of PARG. This technique will permit a better understanding of poly(ADP-ribose) catabolism and better characterization of PARG **isoforms**. (C) 1994 Academic Press, Inc.